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BEHAVIORAL INTENTION OF THE THAIS IN FAMILY PLANNING AND CONTRACEPTIVE PRACTICE

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TABLE OF CONTENTS

LIST OF TABLES

Page

Page

CHAPTER I

INTRODUCTION

In 1980, the world population had reached 4,414 millions and the rate of increase was 1.7 percent. The estimate for the world population by the year 2000 is 6,156 millions. If nothing will be done at this point, poverty of mankind will likely occur. In recent past, almost all countries in the world placed great emphasis on family planning in their developmental plans in order to reduce birth rate. With government efforts, people have been persuaded to observe family planning and contraceptive practices. Their efforts were partially successful. In developed countries, where the family planning programs were successful, the increase rate of the population was 0.0 - 0.9. In developing countries, the increase rate was not satisfactory. In Thailand, the increase rate in 1980 was 2.3 percent. The Thai government has included family planning in the fifth national developmental plan to reduce the increase rate to 1.5. Research has been going on to investigate the reasons for this failure.

According to the theoretical framework proposed by Fishbein, the individual's behaviour (B) is assumed to be a function of his intention to perform that behaviour, that is his behavioural intention (BI), which in turn, is a function of two factors: (a) his beliefs about the consequences of performing that behaviour and the evaluation of those consequences; and (b) his beliefs about what others think he should do, that is his normative beliefs, and his motivation to comply with those others. The theory had been proved to be useful in prediction of family planning and fertility related behaviour (Fishbein 1967, 1972).

The researchers of this project feel that this theoretical framework of the individual's behavioural intention should be useful in prediction of family planning and fertility related behaviour with the Thais. And in the past, researchers had revealed many factors involved with family planning behaviour such as socio-economic, sex, living location, numbers of living children and etc. It is interesting to see the aspects of BI among these variables so that the family planning programmer can deal with these groups according to their differences.

In the past, sexual behaviour in Thai society was not openly discussed. Since the time of socialization women were taught to have bad attitude towards sex. Now, though discussion about sexual behaviour is no longer taboo for women, quite a few women are still embarrassed to discuss it -- even the married ones. Cvetkovich, Grote, Bjorseth and Sarkissian, 1975 cited that the attitude towards accepting one's sexuality is/important correlate with contraceptive use.

Another aspect of Thai personality is a risky personality as shown in the motives for buying lotteries twice a week. Research revealed that most of the Thai males who were household heads were taking high risk (Puntumnawin, 1975). And having a child in a family is a risk taking behaviour since it means inconvenience, more money and more time to spend with the child, and risk to the mother's life, etc. Therefore, risk taking should correlate with the contraceptive use of individual.

Considering these factors, the researchers used Fisnbein model to guide the research to find out the aspects of behavioural intention of the Thais in family planning and contraceptive practices. The aims of the study were to answer the following questions.

Objectives

1. What is the behavioural intention of the Thais in family planning practice? Is it low or high?

2. What is the behavioural intention of the Thais in contraceptive use, i.e. pills, IUD, condom, etc? Is it low or high?

3. What are the aspects of BI in both family planning and contraceptive practices that yield high score, belief or norm?

4. What are the beliefs that comprise high and low score of BI in both aspects?

5. What are the norms that comprise high and low score of BI in both aspects?

6. Is there any correlation between belief and norm?

7. Are there any correlations between social, psychological and demographic variables such as risk taking, attitude towards sex, living location, etc. and BI?

8. Are there any correlations among the variables described in item 7?

Finding the answers to these questions were the objectives of this study.

Importance of Work

In a world with finite amounts of natural resources and a limited capacity for containing the by-products of human activity, many biologists (Ehrlich, 1968, Ward and Dubos, 1972) view the steadily increasing world population and increased demand placed by this population on world food and energy sources as potentially disastrous for the continued existence of man. Now we can see the outcome of the population growth from the higher rate of crimes, wars, food deficiencies, energy crisis and so on.

This project is an effort to study the behaviour of the Thai in reducing birth rate.

Knowing the BI in family planning and contraceptive practice should be a great help to the family planner. Finding what beliefs comprise high BI on both family planning and contraceptive practice would guide the family planner to encourage such beliefs. On the other hand finding beliefs that correlate with low BI will also guide the family planner to change such beliefs. In the case of low score in BI, it indicates that there might be low score in either belief or norm or both. This finding will guide the planner to change attitude accordingly in order to increase BI which will result in behaviour. Correlation between other social psychological variables, their interaction and BI also yield useful information for the family planners in changing attitude.

Definitional Operation

Behavioural intention (BI) refers to the socre being computed by the following formula:

$$BI = \left[\sum_{i=1}^{n} Biai \right] w_1 + \left[\sum_{i=1}^{n} NBiMci \right] w_2$$

where Biai is the belief about the consequences of performing that behaviour and the evaluation of those consequences.

NBiMci is the belief about what others think he should do, and his motivation to comply with those others.

Attitude towards sex is the feeling of an individual about sexual behaviour. It is classified into two categories, bad and good.

Risk taking behaviour can be measured from the score received by the games and divided into low and high categories.

Limitation of Work

Data were collected from the samples in Cholburi, Rayong, Ang-Thong and Pratum-Thamee, in the central part of Thailand. The duration of the study was one year, i.e., October 1980 - October 1981.

CHAPTER II

RELATED LITERATURE

A. Behavioural Intention

The importance of family planning has been recognized in Thailand over the past ten years. Since 1970, the Thai government had implemented the population policy and had it included in the third National Developmental Plan (1972-1976). Emphasis of the policy was on family planning and contraception. This work has been relatively successful since some were interested and came for family planning service. However, comparing the percentage of the people practising family planning to those who should come for the service, the percentage of the former was very low. Moreover, some people who claimed they were interested in coming for the service did not show up. For example, the family planning worker who had visited about 30,870 women interested in getting contraceptive service found that only 13,952 women which was 45.2 percent went to the center to get the service. The workers explained that the failure of the women to show up might be due to lack of time and/or false interest in the service (Report on the Evaluation of Bangkok Metropolis Family Planning Field Workers' Performance, 1976).

Explanations above are reasonable but researchers of this project feel that there might be some other factors involved. Psychological factors might be the most important effects on the family planning practice. Unfortunately, most of the previous researches on population in Thailand were concerned with the social and economics factors. In the western society there have been quite a few researches on population concerning psychological factors over the past two decades. The Indianapolis study (Whelpton & Kiser, 1946-1958) and the Princeton study (West off, Potter & Sagi, 1963: Westoff, Potter, Sagi, & Mishler 1961) indicated no relationships between psychological variables and aspects of family planning and fertility. The failure of finding such relationship might be due to the lack of theory guiding research efforts (Jaccard, 1975). Recently, Fishbein (1967, 1972) has proposed a theory of social behaviour which has been proved to be useful in prediction of family planning and fertility related behaviour. Jaccard had conducted a

research on family planning using Fishbein's model,

$$BI = \left[\sum_{i=1}^{n} B_i a_i\right] w_1 + \left[\sum_{i=1}^{m} NB_i MC_i\right] w_2$$

and found the higher aspect of Biai (belief) than the aspect of NBiMci (norms) within American population.

B. Psychological aspects

Other psychological variables such as attitude towards sexual acts and risk taking can have impact on behavioural intention of the family planning practice and contraceptive use. In some parts of Thailand contraceptive devices are easily available but their uses are almost rare. Unacceptance of such devices may be due to inconvenience, expense involved and so on.

On the other hand, it could be due to embarrassment resulting from the attitude towards sexual act. Thus the attitude towards accepting one's own sexuality is a more important correlate with contraceptive use (Cvetkovich, Grote, Biorseth and Sarkissian; 1975). Also Kantren and Zelnik, 1973 found a strong relationship between contraceptive use and self-perception. Schwartz 1973 found that high-sex-guilt individuals retained less birth control information than low-guilt individuals. Byrne's study, 1977 indicated that individuals who had bad attitude towards sex were less likely to use contraceptives. The Thai culture teach the people especially women to have bad attitude toward sex. Even among the married ones, this attitude is kept in mind. Thus finding about this relationship might be a great help to the family planning program.

Risk-taking is an important factor affecting decision-making. Having a child in a family might have correlation with the risk-taking behaviour of individual. The individual must decide whether or not to have a child. To have a child is risk enough since it might bring inconvenience, more money, more time to spend with the child, and the possibility of risk on the mother's life etc. Therefore, risk-taking should correlate with the contraceptive use of individual.

The risk is shifted when the persons are in group. The persons in group will take more risk than alone (Kogan and Wallach 1962). Husband and wife are classified as a group thus decision of a couple will take more risk than the decision of husband or wife alone.

Another factor affecting risk-taking is social comparison. The person who compares himself with someone who does not practise family planning will do differently if he compares himself with someone who practises family planning. And if he compares himself with the group that he likes and trusts, the possibility that he will act accordingly is very likely (Lass, 1956, - Festinger, 1950).

In Thai family, most males are household heads. The study of Nat Puntumnawin (2518) revealed that most of the males are high risk-taking. The study of Rim (1964) also showed that the high risk-taking of an individual affected the decision of other members in the family. Therefore, risk-taking should have effects on family planning practice. Moreover, risk-taking persons are popular in society (Levinger and Sehneiden, 1969) as they tend to be the model of the others. The same is true in the family planning aspects.

The researchers of this project feel that family planning and contraceptive program will also be effected by the risk taking behaviour of individual.

C. Demographic variables

1) Living Location: Living in rural area or urban area has different impact on the behaviour of the people in using contraceptives. Researches indicated that women in urban had more practice in family planning than those in rural area. In the urban area, 59 percent of women practise family planning; only 29 percent of the women practise family planning in the rural area regardless of the fact that 96-99 percent of the women in both areas have the knowledge of family planning and contraceptive information (Malinee Wongpanich, 1980).
Chamrasrittirong found that in the high progressive province, the fertility rate was low whereas in the low progressive province the fertility rate was high (Chamrasrittirong, 1970).

2) Socio-economics has the same role as living location. Chamrasrittirong also found that high socio-economics people had higher rate of using contraceptives than those with low socio-economics (Chamrasrittirong, 1970). Chalernlerd also found that the people with low socio-economics practise less family planning than those with high socio-economic (Chalernlerd, 1975).

3) Number of children: Research indicated that the number of children living were correlated with family planning practice. Chalerenlerd found that 70 percent of those practising family planning had 3 children (Chalernlerd, 1975). Research with Korean women suggested that the number of living sons were the best predictors of subsequent fertility (Foreit and Suh, 1980). And 47 percent of forest people believed that more children were more beneficial to household economic level (Task Force, Thailand, 1980). Thus the number of children living in the term of prediction for contraceptive acceptance should be varied according to cultures.

D. Contraceptive practices

Recent studies have found exceedingly low continuation rates in several dozen selected countries. Large numbers of individuals who have accepted a contraceptive method quickly discontinued use (Zeidenstein, 1980).

In Thailand, Charoenloet found that the continuation rate of the pill and IUD users were 77.2 percent and 74.6 percent after six months of the service and after one year the rates were dropped to 66.1 percent and 62.4 percent accordingly. The attribution of the dropping rate were mostly from the side effects of the contraceptives and wanting to be pregnant.

In Bangladesh, Rahman et al. found that in 1975, three months after initial distribution of the contraceptives, the percentage of women contracepting had risen from 1 to 17 percent. Thereafter, the current use rate declined to around 12 percent by the second year. This drop was due both to declining rates of new acceptors and to shorter rates of continuation. Surveyed revealed that availability of a single method

choice, side effects, inadequate medical back-up, lack of encouragement for continued use, inefficient female field workers and inadequate supervision were responsible for program deterioration (Rehman et al., 1975).

Mauldin surveyed the experience with contraceptive methods in industrially developing countries and found that on average, less than 20 percent of the married women of reproductive age were then using contraceptives. And continuation rates were extremely low in studies from many countries. Of 100 women who had IUDs inserted, an average of 34 has had them removed during the first 12 months, and an average of 10 more had done so within the second 12 months. For pills user, of every 100 women who had actually begun using contraceptive pills, an average of 55 had abandoned them within the first 12 months, and 16 more within the second. A significant proportion of women attribute discontinuation to side effects, rather than to decisions to become pregnant or other personal reasons. Bleeding, fatigue, dizziness, nervousness and headaches were cited as principal reasons for discontinuation (Mauldin, 1978).

It is obvious that most of the contraceptive users attribute their discontinuation on side effects. As a matter of fact the side effects might not attack every individual using contraceptives but rather it might be from the fear of that side effects and result in discontinuation. The researchers of this project would like to find out the beliefs associated with each kind of contraceptive method among the users guided by the following hypothesis:

Hypothesis

1. The behavioural intention of the Thais in family planning practice is relatively low.

2. The behavioural intention of the Thais in contraceptive use is relatively high.

3. The behavioural intention in both family planning and contraceptive practice that yield high score is belief aspect.

4. There is correlation between belief and norm.

5. There are correlations between psychological variables and behavioral intention in both family planning and contraceptive practice.

6. There are correlations between demographic variables and behavioural intention in both family planning and contraceptive practice.

CHAPTER III

METHODOLOGY

Samples

Data for this study are obtained from the central part of Thailand. Four provinces have been randomly selected according to the criteria of progress (Table 1). Cholburi and Rayong were selected to represent the high progress province; Angthong and Pratum-Thanee, the low progress province.

Table 1: Characteristics of Thai provinces at the central part of Thailand surveyed by 1947-1966.

Low progress province	High progress province
Pratum-Thanee	Cholburi
Nakornnayok	Rayong
Singburi	
Angthong	
Uthai-Thanee	
Kanpangpet	

Each province has 6-10 districts and sub-districts (see Table 2). The districts were randomly selected as in Table 2.

Table 2: Districts of the four selected provinces

Cholburi	Rayong	Angthong	Pratum-Thanee
Meung*	Meung*	Meung*	Meung*
Bangbung	Klaeng*	Chaiyo*	Khlongluang
Banglamung	Bankhai	Pamok	Thanyaburi
Phanatnikhom	Pluak daeng	Phothong	Latlumkaeo
Phanthong	Ban chang	Wisetchaichan	Lumlukka
Sriracha*	Wangchan	Samko	Samkhok*
Sattahip		Sawaengha	Nongsua
Kosichang			
Nongyai			
Pothong			

Each district has many Tam-Bol (communes) with each commune divided into villages. Two villages were randomly selected for the samples, (See Table 3).

Table 3: Selected districts, communes and villages

Province	District	Commune	Village
1. Cholburi	Province center	Bangplasloi	-
		Bangsai	Bangsai
	Sriracha	Thungsukla	Aowudom
		Bangphra	Talatlang
2. Rayong	Province center	Klaeng	Thareore
		Phe	Talat phe
	Kleang	Chak phong	Cha own
		Kram	Kram
3. Angthong	Province center	Talat leong	-
		Banri	Ri
	Chaiyo	Chawai	Chawai
		Chorakhe Rong	Ban nam von
		Ratsathit	Donkataithong
4. Pratumthanee	Province center	Bangparok	-
		Banchang	Moochaokun
	Sum khok	Bang toei	Bang toei
		Khlong khwai	Pho

Questionnaire Construction

All of the available data concerning the beliefs of the contraceptive users from organizations such as population center were collected. The beliefs and persons who have influences upon such beliefs were listed. Also 25 couples in Bangkok areas were interviewed to find out the beliefs. Some most frequently-mentioned beliefs and influential persons were selected to develop the BI questionnaire. The questionnaire was divided into 12 parts as follows:

Part 1 - 2 - to get demographic data and sex attitude
Part 3 - to get BI on family planning practice
Part 4 - to get BI on using pills
Part 5 - to get BI on using injection
Part 6 - to get BI on using IUD
Part 7 - to get BI on using condom
Part 8 - to get BI on using cream, foam and jelly
Part 9 - to get BI on using withdrawal method
Part 10 - to get BI on using rhythm method
Part 11 - to get BI on sterility
Part 12 - to determine the risk-taking behaviour

The risk-taking games are composed of four cards that can be pulled over the holder. On each card there is number 0-9. There are 7 holders which enable the sample to play 7 games for the experiment. Numbers on each card when being summed up in one holder will not exceed 21 points except in holder number 2 and 5 scoring in game number 2 and 5 is crossed out when compute for analysis.

Questionnaires and risk-taking games were pretested with 7 couples in low progress area (at Bangpa, Rajchaburi) and couples in the high progress area (at Bangkok) by ten well-trained interviewers from the Department of Psychology, Kasetsart University. Questionnaires and games were improved then administered to the samples.

Procedure

The subjects were asked to play games which aroused motivation. They were told that each time they played game, the score would be recorded starting 16 and ending 21; if they go beyond this, the score would be 0. If they received high score, they would get high cost reward and if low, they would get low cost reward. After the game, the subjects were given a gift. The gifts were shampoo, body powder, soaps and etc. The kinds of gift received depend on the score the subject received in the game. The purpose of the game is to motivate the subjects to play as best as they would in the real life situation.

Analysis of data

The computer was used for analysis of data. Statistical tools used were percentage, t-test, stepwise regression and correlation.

CHAPTER IV

RESULTS

A. Results for proving Fishbein's model

The study indicated that Fishbein model of behavioural intention proved to be true in family planning and contraceptive behaviour of the Thai people. Score of behaviour and predicted score from the model were significantly correlated in all contraceptive behaviour as shown in Table 4.

Table 4: Correlation between score of behaviour and predicted score from Fishbein model

Contraceptive	r	N	t
Family Planning	.2115**	362	4.10
Pills	.4125**	246	7.07
Injection	.4243**	116	5.00
IUD	.5472**	44	4.24
Condom	.3363**	92	3.59
Rhythm	.4509**	31	2.71
Sterility	.3801**	182	5.50

**P $<$ .01

There were also correlation between score of behaviour and the summation of overall beliefs and the summation of overall norms. The results are shown in Table 5. Results in Tables 4 and 5 showed that both aspects of beliefs and norms were good predictor for the behavioural intention in family planning and contraceptive behaviour. Exception was in the cases of condom and rhythm which showed the norm - significance correlation for the beliefs aspect.

B. General information about the samples being studied

Most of the samples have heard of family planning and contraceptive practices. Also samples have known various methods of contraceptive but the most popular ones are pills and sterility. Results of this finding are shown in Table 6.

Persons who have most influence upon the individual to use contraceptive for the first time are doctors. Oneself, family and friend are second, third and fourth in influence respectively. Family planning worker is almost the least influence source in this study, The explanation could be that since most of family planning programs are in hospital and centers and workers are some doctors and nurses, respondent might conclude this center for the doctor category.

Note: Family = husband, mother, father, relatives
Friend = friend and neighbour
Doctor = medical center's worker, nurse, doctor at hospital and private doctor
Family planning worker = volunteer of Meechai and family planning worker at the center
Media = radio, television, newspaper, text book and poster
Drug store = drug store, illegal doctor, midwife and others

Details of this finding is found in Table 7.

The subjects of this study were both males and females between 15-49 years of age. The education level varies from uneducated to college degree but most of them finished grade 4. The economic status also varied from less than 20,000 bahts to above 100,000 bahts per year. Around 51 percent were in the category of 20,000-59,999 bahts per year. When recording the belongings, the economic status was higher than the income received per year. Data are shown in graph 1.

Table 5: Correlation of behaviour and overall beliefs and behaviour and overall norms across the contraceptive behaviour

Contraceptives	B^1 & $\leq b_i a_i^2$			B & $\leq NB_i MC_i$		
	r	N	t	r	N	t
Family Planning	.1789**	362	3.40	.1413**	362	2.71
Pills	.3164**	246	5.21	.2945**	246	4.82
Injection	.3219**	116	3.60	.3227**	116	3.63
IUD	.5000**	44	3.74	.4256**	44	3.01
Condom	.1685**	92	1.62	.3131**	92	3.13
Rhythm	.2368	31	1.32	.4217*	31	2.41
Sterility	.2486**	182	3.44	.3310**	182	4.71

1 B = Behaviour of individual who are using or intend to use contraceptive.

2 biai = the summation of scores from the belief multiply by the evaluation of such belief.

3 NBiMci = the summation of scores from the norms or persons who influence the individual in contraceptive use multiply by the motivation of the individual to comply with such person.

** Significance at α = .01 level

* Significance at α = .05 level

Table 6: Status of contraceptive

Kinds of contraceptive	Percentage of persons having Knowledge of contraceptive	Percentage of persons currently using contraceptive
Pill	96.96	28.73
Condom	84.81	6.35
IUD	84.25	5.52
Sterility	94.20	26.52
Injection	90.61	9.94
Foam & Jelly	28.18	-
Rhythm	53.59	1.38
Withdrawal	37.85	1.10
Family Planning	92.54	77.90

Table 7: Sources that influence individual to use contraceptive for the first time

Sources	Degree of influence		
	First importance	Second importance	Third importance
One own-self	33.70	56.63	78.73
Family	13.54	9.67	4.70
Friend	10.77	6.35	.83
Doctor	36.46	14.92	5.25
Family planning worker	1.93	1.93	.28
Media	2.49	10.22	9.94
Drug store	1.10	.28	.28

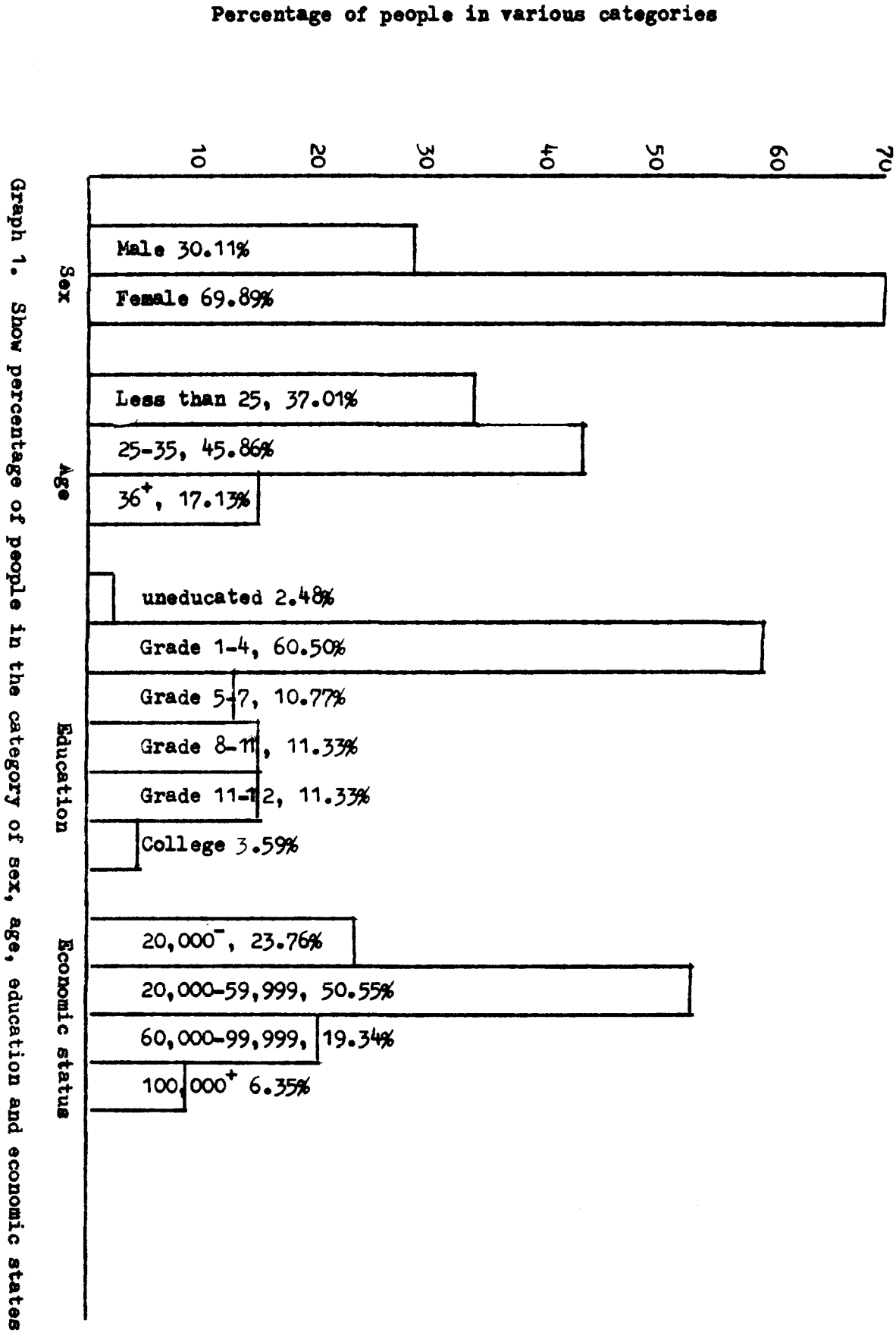
C. Family Planning

The study revealed that the Thais have high behavioural intention in family planning practice. It was found that the belief aspects were a little more important than norm aspect. Correlations between behaviour and belief aspect and norm aspect are 1798 and 1413 respectively. However, the two aspects comprised a good predictor for BI as seen in Table 6. Correlation between belief and norm is .1744. Important beliefs and norms that yield high score in the equation are shown in Tables 8 and 9 accordingly.

Table 8: Correlation between beliefs and BI

Belief about family planning	r	B-coefficient in stepwise regression
Family planning raises economic status	.228	.040*
Family planning enables parents to raise their children nicely	.170	.019*
Contraception is against religion	-.010	
Contraception makes better relationship between husband and wife	.094	
Contraception decrease population	.121	.011*
Contraception gives more freedom in sex activity	-.008	

* $P < .05$



Graph 1. Show percentage of people in the category of sex, age, education and economic states

Stepwise regression showed that the most important beliefs in family planning were:

- family planning raised economic status.
- family planning enabled parents to raise their children nicely.
- contraceptive decreased population.

Table 9: Correlation between behavioural intention in family planning practice and norms

Norm	Correlation	B coefficient in stepwise regression
Spouse	.129	.011*
Friend	.096	
Father	.109	
Mother	.132	.029*
Siblings	.047	
Relatives	.039	
Neighbour	.033	
Doctor	.167	.019*

* $P < .05$

Stepwise regression showed that the most important norms were doctor, spouse and mother accordingly.

When comparing the beliefs of the groups with low behavioural intention and high behavioural intention in family planning practice, it was found that the rank of beliefs in each group was different. The most important beliefs for the low and high BI group are shown in Tables 10 and 11 respectively.

When comparing BI according to number of children, it was found that there were relation between these two variables. The higher the number of living children, the higher the behavioural intention for family practice. Data comparing BI according to numbers of children are shown in Table 12.

Table 10: Correlation between behavioural intention in family planning practice and beliefs for the low BI group

Beliefs	Correlation	B coefficient in stepwise regression
Family planning raises economic status	.489	.010*
Contraceptive decreases population	.268	.008*
Contraceptive makes better relationship between husband and wife.	.346	.007*
Family planning enables parents to raise their children nicely	.327	.006*
Contraceptive is against religion	.138	.007*
Contraceptive gives more freedom in sex activity	.191	.006*
R^2		.664*

*p < .05

Table 11: Correlation between behavioural intention in family practice and beliefs for the high BI group

Beliefs	Correlation	B coefficient regression in stepwise
Contraceptive gives more freedom in sex activity	.286	.005*
Contraceptive decreases population	.189	.004*
Contraception makes better relationship between husband and wife	.180	.003*

* P < .05

Table 12: Comparing behavioural intention for family planning practice according to numbers of children

Pair for comparing numbers of children	t	df
0 - 3 and 4 - 7	1.0378	355
0 - 3 and 8 - 11	-2.0879*	270
4 - 7 and 8 - 11	- 2.1862*	93

* $P < .05$

Behavioural intention among various ages were also different. The age level of 35 and below had significant higher behavioural intention than the age level of 36 and above. Results are shown in Table 13.

Table 13: Comparing behavioural intention for family planning according to age level

Pair for comparing age	t	df
36^{+} and 26 - 35	-2.6078*	236
36^{+} and 25^{-}	-1.9821*	181
26-35 and 25^{-}	.2917	301

* $P < .05$

By looking at economic status classified into three categories: good, moderate and low, it was found that there were no significant differences among various economic status. The finding was also true with the living location.

Comparing the behavioural intention for family planning practice on sex variable, the result showed that there was different behavioural intention between sex but not significance at $\alpha = .05$ level. In other psychological aspects as attitude towards sex and risk-taking, there were no significant differences in behavioural intention for family planning on both aspects.

D. Pills

About 29 percent of the subjects use pill. Stepwise regression suggested that both aspects of beliefs and norms were good predictor for behavioural intention for using pill. Correlation for both aspects and behavioural intention was .41 and correlation between beliefs and norms was .10. Beliefs were more important than norms. Correlations for overall beliefs and norms with BI were .324 and .236 respectively. Correlations between each belief and behavioural intention and each norm with behavioural intention are shown in Tables 14 and 15 accordingly.

Table 14: Correlation between the behavioural intention of using pill and beliefs

Belief about using pill	r	B coefficient in stepwise regression
Pill is effective in preventing pregnancy	.258	.049*
Pill enables the couple to make love normally	.270	.064*
Pill does not limit hard work	.163	
Pill leads to vomitting	.172	.049*
Pill leads to irregularity in having period	-.047	-.070
Pill leads to freckle	.035	
Pill makes you gain weight	-.043	
Pill leads to moodiness	.184	
Pill is not convenient because it can be forgotten easily	.080	.051*
R^2		.162*

* $P < .05$

Stepwise regression revealed that the important beliefs were as follows:

- pill is effective in preventing pregnancy
- pill enables the couple to make love normally

- pill leads to vomitting
- pill leads to irregularity in having period
- pill is not convenient because it can be forgotten easily

Table 15: Correlation between the behavioural intention of using pill and norms

Norms	r	B coefficient in stepwise regression
Spouse	.169	.026*
Friend	.172	
Father	.129	.054*
Mother	.110	
Sibling	.107	
Neighbour	.160	
Relative	.128	
Doctor	.399	.054*

* P <.05

Stepwise regression showed that the most important norms for the persons to use pill were doctors, father and spouse accordingly.

When comparing the beliefs of the groups with low behavioural intention and high behavioural intention in family practice, it was found that the rank of beliefs in each group was different. The most important beliefs for the low and high BI group are shown in Tables 16 and 17 accordingly.

Table 16: Correlation between behavioural intention in using pills for the low BI group

Beliefs	Correlations	B coefficient in stepwise regression
Pill is effective in preventing pregnancy	.312	.018*
Pill leads to moodiness	.264	.015*
Pill leads to weight gain	.239	.027*
Pill enables the couple to make love normally	.223	.018*
Pill leads to irregularity in having period	.214	.014*

* P <.05

Table 17: Correlation between behavioural intention in using pills for the high BI group

Beliefs	Correlation	B coefficient in stepwise regression
Pill leads to moodiness	.411	.025*
Pill leads to freckle	.176	.025*
Pill does not limit hard work	.213	.016*
Pill is effective in preventing pregnancy	.211	.023*

*P < .05

When comparing BI in using pills according to other variables such as number of children, age, economic status, living location, attitudes towards sex and risk taking, results yield that there were no significant differences in these variables.

E. Injection

About 9.94 percent of the people use injection. Stepwise regression suggests that both aspects of beliefs and norms are good predictors for behavioural intention for using injection. Correlation for both aspects and behavioural intention is .42 and correlation between belief and norms is .15. Correlations between behaviour and belief aspect and norm aspect are .3219 and .3227 respectively. Both aspects comprise a good predictor for BI. Norm aspect is a little more important than belief aspect. Important beliefs and norms that yield high score in the equation are shown in Tables 18 and 19 accordingly.

Stepwise regression showed that the most important beliefs in using injection were:

- injection caused gaining weight
- injection is convenient
- injection does not interrupt sexual act

Table 18: Correlation between the behavioural intention of using injection and beliefs

Beliefs about injection	Correlation	B coefficient in stepwise regression
Injection can prevent pregnancy	.159	
Injection is convenient	.223	.064*
Injection gives good milking	.067	
Injection is dangerous to health	.138	
Injection does not interrupt sexual act	.223	.048*
Injection does not interrupt hard work	.009	
Injection leads to vomitting	.029	
Injection leads to period irregularity	.109	
Injection leads to freckle	.083	
Injection leads to weight gain	.284	.080*
Injection causes moodiness	.113	
R^2		.178

* $P < .05$

Table 19: Correlation between behavioural intention in using injection and norms

Norm	Correlation	B coefficient in stepwise regression
Spouse	.371	.082*
Friend	.299	
Father	.044	
Mother	-.021	-.122*
Siblings	.018	
Neighbour	.179	
Relative	.179	
Doctors	.460	.097*

* $P < .05$

Stepwise regression showed that the most important norms in using injection were doctors, spouse and mother.

When comparing the beliefs of the groups with low behavioural intention and high behavioural intention in using injection, it was found that the rank of beliefs in each group was different. The most important beliefs for the low and high BI group are shown in Tables 20 and 21 accordingly.

Table 20: Correlation between behavioural intention in using injection and beliefs for the low BI group

Beliefs	Correlation	B coefficient in stepwise regression
Injection can prevent pregnancy	.448	.024*
Injection leads to freckle	.287	.068*
Injection leads to period irregularity	.094	.055*
Injection leads to weight gain	.204	.014*
Injection does not interrupt sexual act	-.039	.019*
Injection leads to vomitting	.015	-.039*
R^2		.563*

* $P < .05$

Table 21: Correlation between behavioural intention in using injection and beliefs for the high BI group

Beliefs	Correlation	B coefficient in stepwise regression
Injection gives good milking	.662	.0381*
Injection leads to freckle	-.305	-.039*
Injection leads to gaining weight	.220	.015
Injection is convenience	.019	-.008*
Injection leads to period irregularity	.299	.017*
R^2		.687*

* $P < .05$

When comparing behavioural intention among various ages, the age level of below 25 have significant higher behavioural intention than the age level of 26-35. Results are shown in Table 22.

Table 22: Comparing behavioural intention for using injection according to age level

Pair for comparing age	t	df
36^{+} and 26 - 35	.2684	83
36^{+} and 25^{-}	-1.1613*	53
26 - 35 and 25^{-}	-1.8437*	90

* $P < .05$

Looking at other variables such as number of children, living location, sex, economic status, feeling towards sexual act and risk-taking, there was no significant difference between behavioural intention and these variables.

F. IUD

The finding suggests that most people have knowledge of IUD. The belief aspects were more important than norm aspects. Correlations between behaviour and belief aspect and norm aspects are .316 and .295 accordingly. Correlation between the two aspects is .099. And both aspects are good predictor for BI. Important beliefs and norms are shown in Tables 23 and 24.

Stepwise regression showed that the most important beliefs in behavioural intention of using IUD were:

IUD can prevent pregnancy

IUD causes cancer

Table 23: Correlation between the behavioural intention of using IUD and beliefs

Beliefs	Correlation	B coefficient in stepwise regression
IUD can prevent pregnancy	.440	.125*
IUD can resume normal sexual activity	.339	
IUD is convenient	.230	
IUD does not cause side effect	.201	
IUD causes discharge	.100	
IUD leads to period irregularities	.186	
IUD causes cancer	.296	.214*
IUD may get into the uterus	.114	

* $P < .05$

Table 24: Correlation between behavioural intention in using IUD and norms

Norm	Correlation	B coefficient in stepwise regression
Spouse	.272	
Friend	.188	
Father	.245	
Mother	.289	
Siblings	.252	
Relatives	.320	
Neighbour	.381	.101*
Doctor	.471	.082*

* $P < .05$

Stepwise regression showed that the most important norms were doctor and neighbour respectively.

Looking at the beliefs for the low and high BI group is using IUD, it was found that the rank of belief in each group was different. The most important beliefs for the low and high BI group are shown in Tables 25 and 26 respectively.

Table 25: Correlation between behavioural intention in using IUD and beliefs for the low BI group

Beliefs about IUD	Correlation	B coefficient in stepwise regression
IUD may get through the uterus	-.691	-.013*
IUD does not cause side effect	.557	.027*
IUD can prevent pregnancy	.657	.725*

* $P < .05$

Table 26: Correlation between behavioural intention in using IUD for the high BI group

Beliefs about IUD	Correlation	B coefficient in stepwise regression
IUD may get into the uterus	.608	.043*
IUD is convenient	.258	.083*

* $P < .05$

Comparing BI according to the number of children, the result suggested that there were relations between the two variables. The higher the number of living children, the higher the behavioural intention for using IUD. Data for comparing BI according to numbers of children are shown in Table 27.

Comparing the variable of feeling towards sexual act, it was found that the better the feeling towards sexual act the higher the behavioural intention of using IUD. The difference was significantly different at .05, $t(42) = -1.7048$. For other variables such as age, sex, living location and risk-taking, the results showed no significant difference between the behavioural intention in using IUD and these variables.

Table 27: Comparing behavioural intention for using IUD according to numbers of children

Pair for comparing numbers of children	t	df
0-3 and 4-7	.261	41
0-3 and 8-11	-1.939*	29
4-7 and 8-11	-2.582*	12

*P <.05

G. Condom

Only 6.35 percent of the samples are using condom. Both belief and norm aspects are good predictors for behavioural intention in using condom. Correlation between behaviour and both aspects is .34. Correlation between belief and norm is .1508. Norm aspect is more important that belief aspect. Correlation between beliefs and behaviour is .1685 while between norm and behaviour is .313. Important beliefs and norms in using condom are shown in Tables 28 and 29 respectively.

Table 28: Correlation between beliefs and behavioural intention in using condom

Beliefs about condom	Correlation	B coefficient in stepwise regression
Condom can prevent pregnancy	.119	
Condom is convenient	.039	
Condom makes ejaculation slower.	-.074	
Condom decreases sexual satisfaction	.162	
Getting condom causes embarrassment	.160	
Condom prevents contagious disease	.104	
R^2		.026^{ns}

ns = non-significance at .05

Stepwise regression showed no significant correlation between beliefs and behaviour in using condom.

Table 29: Correlation between norms and behavioural intention in using condom

Norms	Correlation	B coefficient in stepwise regression
Spouse	.271	.052*
Friend	.122	
Father	.078	
Mother	.121	
Sibling	.212	
Neighbour	.119	
Relative	.194	
Doctor	.267	.048*

*P $<$ .05

Stepwise regression revealed that important norms were spouse and doctor.

Comparing beliefs of the low and high BI groups, it showed different rank of beliefs for low and high BI group. Data are shown in Tables 30 and 31 accordingly.

Table 30: Correlation between beliefs and behaviour for the low BI group in using condom

Beliefs about condom	Correlation	B coefficient in stepwise regression
Condom decreases sexual satisfaction	-.482	-.041*
Condom is convenient	.267	.015*
Condom can prevent pregnancy	-.133	-.012* .404*

*P $<$ .05

Table 31: Correlation between beliefs and behaviour in using condom for the high BI group

Beliefs about condom	Correlation	B coefficient in stepwise regression
Condom prevents contagious disease	-.278	-.056*
Getting condom causes embarrassment	-.145	-.010*

*P <.05

Comparing BI by looking at economic status variable, it was found that the higher the economic status, the higher the BI in using condom. Data are shown in Table 32.

Table 32: Comparing BI in using condom among the economic status variable

Pair for comparing economic status	t	df
High-moderate	1.993*	70
High-low	.605	49
Moderate-low	-.956	59

*P < .05

Looking at other variables such as number of children, age, sex, living location, attitude towards sexual act and risk-taking, there were not significant differences in behavioural intention of using condom and these variables.

H. Rhythm

Only 1.38 percent of the people use rhythm. Both beliefs and norms together are good predictors for BI in rhythm practice. Correlation between behaviour and beliefs with norms is .45. Correlation between beliefs and norms is .1896. Norms are important than beliefs. It means that people who practise rhythm usually listen to others rather than to their own beliefs. Important beliefs are shown in Table 33.

Table 33: Correlation between beliefs and behavioural intention in practising rhythm

Beliefs about rhythm	Correlation	B coefficient in stepwise regression
Rhythm can prevent pregnancy	.214	
Rhythm delays sexual act	.157	
Rhythm is not dangerous	.234	
Rhythm leads to neurosis	-.046	
p^2		$.055^{ns}$

ns = non-significant at .05

There was no significant correlation between overall beliefs and behavioural intention of rhythm practice. This finding is also true with the low and high BI group for rhythm practice.

Looking at norms, there was significant correlation between norms and behavioural intention in rhythm practice. Data are shown in Table 34.

Stepwise regression revealed that important norm is relative.

Comparing behavioural intention of rhythm practice by looking at the living location variable, it was found that the low progress practise more rhythm than the high progress. Data are shown in Table 35.

Table 34: Correlation between norms and behavioural intention in practising rhythm

Norms	Correlation	B coefficient in stepwise regression
Spouse	.300	
Friend	.183	
Father	.161	
Mother	.161	
Sibling	.306	
Neighbour	.151	
Relative	.333	.239*
Doctor	.176	

*P $<$ .05

Table 35: Comparing behavioural intention of the group of high progress and low progress province

Province	Mean	df	t
High progress	4.707	29	-2.157**
Low progress	4.139		

**P $<$ .01

When comparing BI with other variables such as economic status, number of children, sex, risk taking and attitude towards sex, it was found that there were no significant differences in BI in using rhythm among these variables.

I. Sterilization

About 26.52 percent of the subjects use sterilization. Both aspects of beliefs and norms are good predictors for the behavioural intention in using sterilization. Correlation between behaviour and behavioural intention for sterilization is .380. Correlation between behaviour and beliefs and norms is .249 and .331 respectively. Norms are more important than beliefs. Correlation between each belief and

behavioural intention and each norm with behavioural intention are shown in Tables 36 and 37 respectively.

Table 36: Correlation between beliefs and behavioural intention in using sterilization

Beliefs about sterilization	Correlation	B coefficient in stepwise regression
Sterilization can prevent pregnancy	.178	.071*
Sterilization leads to happy sexual act	-.073	-.039*
Sterilization can prevent resumption of hard work	.131	
Sterilization causes moodiness	.201	.045*
Sterilization leads to weight gain	.123	
Sterilization decreases sexual ability	.155	
Sterilization leads to neurosis	.200	.073*
R^2		.103*

*P $<$.05

Important beliefs for behavioural intention in using sterility from stepwise regression were;

- Sterilization leads to neurosis.
- Sterilization can prevent pregnancy.
- Sterilization causes moodiness.
- Sterilization leads to happy sexual act.

Stepwise regression revealed that the important norms were doctor, spouse, father and mother.

Table 37: Correlation between norms and behavioural intention in using sterilization

Norms	Correlation	B coefficient in stepwise regression
Spouse	.276	.042*
Friend	.228	
Father	.114	-.136*
Mother	.154	.110*
Sibling	.138	
Neighbour	.095	
Relative	.181	
Doctor	.438	.090*
R^2		.236*

*P < .05

When comparing BI for the low and high BI group, results showed different beliefs. Data for the low BI group are shown in Table 38.

Table 38: Correlation between beliefs and behavioural intention for the low BI group in using sterilization

Beliefs about sterilization	Correlation	B coefficient in stepwise regression
Sterilization leads to happy sexual act.	.392	.039*
Sterilization leads to neurosis	.229	.038*
Sterilization can prevent pregnancy	.171	.018*
Sterilization causes weight gain	.161	.015*
R^2		.417*

*P <.05

For the high BI group, no significant correlation between sets of beliefs and behavioural intention in having sterilization were found.

Looking at other variables such as living location, attitude towards sex, numbers of living children, etc., there were not significant differences among these variables with BI in having sterilization.

CHAPTER V

SUMMARY AND DISCUSSION

Objectives of the study

1. To find out the behavioural intention of the Thai in family planning and contraceptive practice;
2. To find out the aspects of behavioural intention in both family planning and contraceptive practice that yield high score, belief or norm;
3. To find out the beliefs that comprise high and low score of BI in both aspects;
4. To find out the most influential norms on both family planning and contraceptive practice;
5. To find out the correlation between belief and norm; and
6. To find out the correlation between social and psychological variables with BI and demographic variables with BI.

Samples

Data for this study are obtained from the central part of Thailand living in high progress provinces, Cholburi and Rayong and low progress provinces, Angthong and Prathum-Thanee.

Procedure

1. Provinces were selected according to the criteria of progress and unprogress.
2. Two provinces in each category were randomly drawn.
3. Two districts in each province were selected.
4. People were interviewed and asked to play the risk taking games.

Conclusion of the finding and discussion

1. Fishbein's model of behavioural intention proved to be true in family planning and contraceptive behaviour of the Thai people. And both aspects of beliefs and norms were good predictors for the behavioural

intention in family planning and contraceptive behaviour. Exception was in the cases of condom use and rhythm practice which showed the non-significant correlation for the belief aspect. Detail will be discussed later.

2. Most Thai have knowledge of family planning and contraceptive practices but the percentage of using contraceptive is rather low. This is probably due to the fact that the beliefs for each kind of contraceptive is dissonance. It means that they perceive contraceptive as both favourable and unfavourable. And this causes imbalance in attitude towards the use of such contraceptive thus resulting in low percentage of users.

3. For family planning, the Thais have high BI in family planning practice. Belief aspects were important than norm aspects. In order to encourage them to practise family planning, one should pay attention to the belief aspects. The most important beliefs were: family planning raised economic status, family planning enabled parents to raise their children nicely and contraceptive decreased population. It can be seen that all three important beliefs that comprise the equation for BI in family planning practice are favoured. This results in high percentage of family planning practice.

When viewing the beliefs of the low BI group and the high BI group for family planning practice, beliefs were different between the two groups (see Tables 10 and 11). The high BI group viewed family planning program for freedom in sex activity as the most important while the low BI group viewed this belief as the last one.

Looking at other variables, it was found that the higher the number living children, the higher the behavioural intention for family planning practice. This is relevant since the more people in the family, the more needs thus they tend to think of family planning.

It was also found that the age levels 26-35 and below 25 had higher behavioural intention in family planning practice than the age level 36 and above. The latter might be explained by the fact that those above 36 had stabilized their family size so that they did not have to think about family planning.

On other variables such as living location, economic status, attitude towards sex and risk-taking, no significant difference was found on BI in family planning practice.

4. About 29 percent of the people use pill. Beliefs aspect is more important than norm aspect among pill users. However, norms, though not as important as beliefs are also good predictors for the intention to use pills.

Important beliefs are as follows:

1. Pill enables the couple to make love normally;
2. Pill is effective in preventing pregnancy;
3. Pill leads to vomitting;
4. Pill is not convenient because it can be forgotten easily; and
5. Pill leads to period irregularity.

The above shows that there are both good and bad beliefs; it depends upon the individual to put weight on which belief.

From the norm aspect point of view, the most important influential persons are doctor, father and spouse.

Comparing beliefs of the low BI and high BI group, there were differences in the rank of beliefs (see Tables 16 and 17). It can be seen that both low and high BI group do not have favourable beliefs about the consequences of using pill. The only favourable beliefs are that the pill is effective in preventing pregnancy and does not limit hard work. They may have impact on the high BI group who want to use pill.

No significant difference was found among other variables such as age, living location, etc. on BI in using pill.

5. For injection, both aspects of beliefs and norms are good predictors for BI. Norm aspect is slightly more important than belief aspect. Important beliefs are as follows:

1. Injection is convenient;
2. Injection does not interrupt sexual act; and
3. Injection leads to weight gain.

For the norm aspect, the most influential are doctor, spouse and mother. Norms seem to be important as people tend to link injection with doctors.

Looking at the beliefs between the low and high BI groups, both groups have unfavourable beliefs although the high BI group tends to have more favourable beliefs than the low BI group (see table 20 and 21).

Comparing BI groups of two age levels, those under 25 have higher intention in using injection than those 26-35. This finding is the same as in family planning practice.

For other variables such as economic status, risk-taking and so on, no significant difference was found on the BI of using injection.

7. For using IUD, both aspects of beliefs and norms are good predictors for BI. Beliefs are more important than norms. Important beliefs are: IUD can prevent pregnancy and IUD causes cancer. And for the norm aspects, the most influential are doctors and neighbours.

Important beliefs for low BI and high BI groups are almost the same: both groups perceived IUD to get through the uterus although the high BI group perceived it as convenient (see Tables 24 and 25). Only 5.5 percent of the respondents perceived the latter use of IUD.

Looking at the variables of number of living children, the group with 8-11 children has higher BI in using IUD than other groups with less children.

Comparing the variable of feeling towards sexual act, the more favourable feeling towards sexual act, the higher the BI for using IUD.

Other variables, such as economic status, living location and so on, have no significant difference on BI in using IUD.

7. For condom, both belief and norm aspects together are good predictors for behavioural intention. Norm aspect is found more important. No significant correlation was found between the beliefs and behaviour in using condom. And for the norm aspect, the most influential are spouse and doctor.

Comparing beliefs between low and high BI group, there were different ranks of beliefs (see Tables 30 and 31). The low BI group perceived condom to decrease sexual satisfaction but to be both convenient and pregnancy preventive. The high BI group perceived condom to prevent contagious disease and cause shamefulness. The difference of attribution between the two groups might come from the fact that the low BI group attributes to condom prevention of pregnancy of their wives but the high BI group attributes prevention of contagious disease that might be derived from contact with prostitutes.

Looking at the economic status variable, it was found that the higher economic status, the higher the BI in using condom.

For other variables, there were significant differences in BI in using condom.

8. For rhythm, both aspects of beliefs and norms together make a good predictor for BI in rhythm practice. Norms were more important than beliefs. There is only one belief that is important i.e., rhythm as it is not considered dangerous.

For low and high BI group, no important belief could be found. Norms that have influence upon the individual to practise rhythm is relative.

Comparing BI with living location variable, it was found that the lower progress area practised more rhythm than the high progress area:

- sterility leads to neurosis;
- sterility can prevent pregnancy;
- sterility causes moodiness; and
- sterility leads to happy sexual act.

Comparing beliefs between the low and high BI group, it was found that there were no significant beliefs that constitute for BI in having sterility in the high BI group. However, important beliefs for the low BI group are

- sterility leads to happy sexual act;
- sterility leads to neurosis;
- sterility can prevent pregnancy; and
- sterility causes weight gain.

It can be seen that people have both favourable and unfavourable attitude towards sterility.

Looking at other variables, no significant difference was found on BI in having sterility.

Suggestions

For the family planner

1. Persons involved in family planning program should pay close attention to the unfavourable beliefs because these beliefs influence the behaviour in practising contraceptives. From the findings there are many unfavourable beliefs for each contraceptive method. The family planner should try to change such beliefs and encourage the favourable beliefs.

2. The findings suggested that norms are as important as beliefs so the family planner should approach the right person. And in the findings, the results showed different norms for each kind of contraceptive method; therefore, appropriate norms should be selected.

For research

Beliefs and norms are quite important in predicting contraceptive behaviour. Thus in order to encourage the family planning and contraceptive behaviour, more researches should be carried on. Different groups of people have different beliefs, therefore, researches of this kind are necessary for every culture that want to encourage family planning and contraceptive behaviour.

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SEAPRAP

THE SOUTHEAST ASIA POPULATION RESEARCH AWARDS PROGRAM

PROGRAM OBJECTIVES

* To strengthen the research capabilities of young Southeast Asian social scientists, and to provide them with technical support and guidance if required.

* To increase the quantity and quality of social science research on population problems in Southeast Asia.

* To facilitate the flow of information about population research developed in the program as well as its implications for policy and planning among researchers in the region, and between researchers, government planners and policy makers.

ILLUSTRATIVE RESEARCH AREAS

The range of the research areas include a wide variety of research problems relating to population, but excludes reproductive biology. The following are some examples of research areas that could fall within the general focus of the Program:

* Factors contributing to or related to fertility regulation and family planning programs; familial, psychological, social, political and economic effects of family planning and contraception.

* Antecedents, processes, and consequences (demographic, cultural, social, psychological, political, economic) of population structure, distribution, growth and change.

* Family structure, sexual behaviour and the relationship between child-bearing patterns and child development.

* Inter-relations between population variables and the process of social and economic development (housing, education, health, quality of the environment, etc).

* Population policy, including the interaction of population variables and economic policies, policy implications of population distribution and movement with reference to both urban and rural settings, and the interaction of population variables and law.

* Evaluation of on-going population education programs and/or development of knowledge-based population education program.

* Incentive schemes — infrastructures, opportunities; overall economic and social development programs.

SELECTION CRITERIA

Selection will be made by a Program Committee of distinguished Southeast Asian scholars in the social sciences and population. The following factors will be considered in evaluating research proposals:

1. relevance of the proposed research to current issues of population in the particular countries of Southeast Asia;
2. its potential contribution to policy formation, program implementation, and problem solving;
3. adequacy of research design, including problem definition, method of procedure, proposed mode of analysis, and knowledge of literature;
4. feasibility of the project, including time requirement; budget; and availability, accessibility, and reliability of data;
5. Applicant's potential for further development.

DURATION AND AMOUNT OF AWARDS

Research awards will be made for a period of up to one year. In exceptional cases, requests for limited extension may be considered. The amount of an award will depend on location, type and size of the project, but the maximum should not exceed US$7,500.

QUALIFICATIONS OF APPLICANTS

The Program is open to nationals of the following countries: Burma, Indonesia, Kampuchea, Laos, Malaysia, Philippines, Singapore, Thailand and Vietnam. Particular emphasis will be placed on attracting young social scientists in provincial areas.

Applications are invited from the following:

* Graduate students in thesis programs

* Faculty members

* Staff members in appropriate governmental and other organizations.

Full-time commitment is preferable but applicants must at least be able to devote a substantial part of their time to the research project. Advisers may be provided, depending on the needs of applicants.